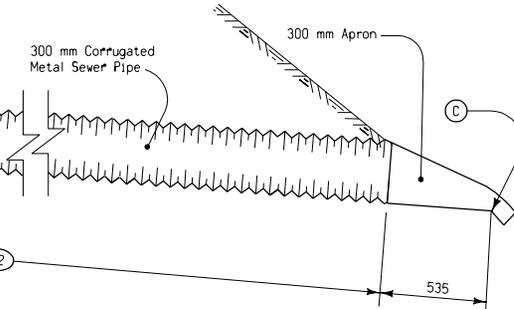
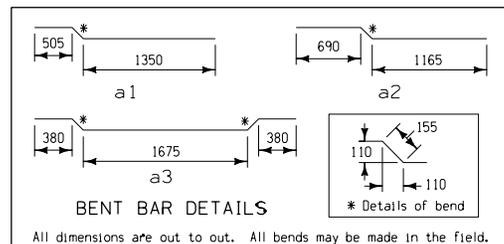


DETAILS OF GRATE POSITIONING BOLT



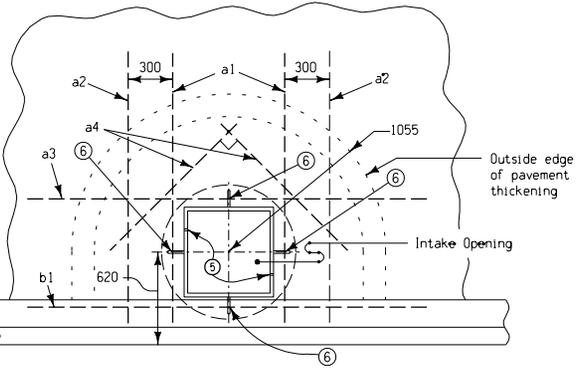
SECTION B-B THROUGH INTAKE



BENT BAR DETAILS

All dimensions are out to out. All bends may be made in the field.

REINFORCING BAR LIST						
MARK	SIZE	LOCATION	SHAPE	NO.	LENGTH	MASS
a1	15	Shoulder		2	2010	6 kg
a2	15	Shoulder		2	2010	6 kg
a3	15	Shoulder		1	2745	4 kg
a4	15	Shoulder		2	1220	4 kg
b1	15	Curb		1	2665	4 kg
					Total	24 kg



REINFORCING LAYOUT

Note: Place bars a1, a3, & b1 through holes in intake casting.

**GENERAL NOTES:**  
Materials and methods of construction shall be in accordance with current Standard and Supplemental Specifications.

Storm sewer pipe locations shown hereon are typical. Refer to detail project plans for additional data. The 300 mm Corrugated Metal Storm Sewer Pipe and 300 mm Metal Apron shall be paid for separately.

Precast base shall be constructed using WWF 100 x 100 - W2.9 reinforcing or equivalent. Groove portions of base shall be carefully constructed to ensure correct installation of intake well.

Unless specified otherwise as a part of detail project plans, cast iron grates, frames, and settlement collars shown hereon shall not be paid for separately but shall be included with and considered incidental to "RF-38 Bridge End Drain" (see Standard Road Plans RA-67A, RA-67B, and RA-67C for details of castings).

All joints in corrugated metal pipe made with connecting bands shall be installed with approved asphaltic sealer to ensure a water-tight joint.

Flow Line (A) elevation is 30 mm below Form Grade Elevation.

Flow Line (B) elevation is 1.75 m below flow line (A).

Flow Line (C) elevation is 0 to 150 mm above ditch grade.

For actual flow line elevations of (A), (B), (C), and dimensions of L1 and L2, see "Tabulation of Bridge End Drains."

- Before backfilling around the intake assembly, wrap two thicknesses of engineering fabric around the settlement collar. Tape all the way around with 50 mm duct tape immediately below the flange of upper section and 100 mm below the top of well pipe.
- Slip joint casting shall be fastened temporarily with (4) 12.7 mm cap screws during pavement construction. Cap screws shall be removed after pavement is hardened.
- Mortar grout shall meet the requirements of Article 4149.07 of the current specifications.
- 585 mm x 380 mm slot for insertion of 300 mm corrugated metal pipe.
- Field place 12.7 mm x 100 mm long bolt in upstream side and bend underside to prevent removal.
- Reinforcing shall be placed through the appropriate holes in the intake casting.
- Frame casting fastened to Upper Collar casting at 4 locations using 12.7 mm x 50 mm long hex bolts and 12.7 mm nuts.

All dimensions given in millimeters unless noted.

<b>M</b>	Iowa Department of Transportation Project Development Division	
	<b>STANDARD ROAD PLAN RF-38(2)</b>	
	REVISION: Changed Procedure of Measurement of CMP.	REVISION NO. 2
	APPROVED BY:  DESIGN METHODS ENGINEER 06-07-00	REVISION DATE 10-03-00
INTAKE FOR BRIDGE END DRAIN (SHEET 2 OF 2)		